

PATENT ASSIGNMENT

Electronic Version v1.1
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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Peter Rosenthal	01/18/2008
Carlos A. Duran	01/22/2008
Alexei Maznev	01/23/2008
Alexander Mazurenko	01/15/2008
RECEIVING PARTY DATA	
Name:	Advanced Metrology Systems LLC
Street Address:	12 Michigan Drive
City:	Natick
State/Country:	MASSACHUSETTS
Postal Code:	01760
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	11994763
CORRESPONDENCE DATA	
Fax Number:	(617)523-1231
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	617-570-1098
Email:	lgunturi@goodwinprocter.com
Correspondent Name:	Goodwin Procter LLP Attn: Patent Admin
Address Line 1:	Exchange Place, 53 State Street
Address Line 4:	Boston, MASSACHUSETTS 02109
ATTORNEY DOCKET NUMBER:	AMS-001
NAME OF SUBMITTER:	Steven J. Frank

CH \$40.00 11994763

Total Attachments: 16
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**PATENT
 REEL: 020663 FRAME: 0342**

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ASSIGNMENT

WHEREAS, We, **Peter Rosenthal, Carlos A. Duran, Alexei Maznev, and Alexander Mazurenko** have invented one or more inventions described in an application for Letters Patent of the United States entitled:

METHOD OF MEASURING DEEP TRENCHES WITH MODEL-BASED OPTICAL SPECTROSCOPY

and identified by

Attorney Docket No. AMS-001, and/or executed by us on even date herewith and about to be filed in the United States Patent Office; and

Serial No. 11/994,763 filed in the United States Patent Office on January 4, 2008; and

WHEREAS, Advanced Metrology Systems LLC (hereinafter "ASSIGNEE"), a limited liability corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 12 Michigan Drive, Natick, MA 01760, desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of our entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional,

substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, we hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, we hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of our execution of this assignment;

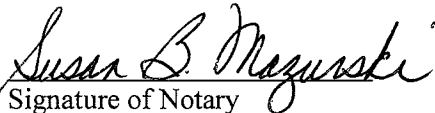
AND, we hereby authorize and request the Director of the United States Patent and Trademark Office and the empowered officials of all other governments to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals on the date(s) set forth below.

Inventor: 
Peter Rosenthal

State/Commonwealth of Connecticut
County of Hartford) ss Simsbury

On this 18th day of January, 2008 before me, the undersigned Notary Public, personally appeared Peter Rosenthal, proved to me through satisfactory evidence of identification, which was/were CT Drivers License, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.


Signature of Notary

(Seal)

My Commission Expires: 12-31-2009

Inventor: _____
Carlos A. Duran

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Carlos A. Duran, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

Inventor: _____
Alexei Maznev

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexei Maznev, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

Inventor: _____
Alexander Mazurenko

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexander Mazurenko, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

LIBA/1857949.1

ASSIGNMENT

WHEREAS, We, **Peter Rosenthal, Carlos A. Duran, Alexei Maznev, and Alexander Mazurenko** have invented one or more inventions described in an application for Letters Patent of the United States entitled:

METHOD OF MEASURING DEEP TRENCHES WITH MODEL-BASED OPTICAL SPECTROSCOPY

and identified by

Attorney Docket No. AMS-001, and/or executed by us on even date herewith and about to be filed in the United States Patent Office; and

Serial No. 11/994,763 filed in the United States Patent Office on January 4, 2008; and

WHEREAS, Advanced Metrology Systems LLC (hereinafter "ASSIGNEE"), a limited liability corporation organized and existing under the laws of the State of Delaware, and having a usual place of business at 12 Michigan Drive, Natick, MA 01760, desires to acquire an interest therein, in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of our entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional,

substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications;

AND, we hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved;

AND, we hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on the date of our execution of this assignment;

AND, we hereby authorize and request the Director of the United States Patent and Trademark Office and the empowered officials of all other governments to issue such Letters Patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals on the date(s) set forth below.

Inventor: _____
Peter Rosenthal

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Peter Rosenthal, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

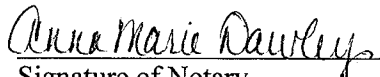
(Seal)

My Commission Expires: _____

Inventor: 
Carlos A. Duran

State/Commonwealth of New York)
County of St. Lawrence) ss

On this 22nd day of January, 2008 before me, the undersigned Notary Public, personally appeared Carlos A. Duran, proved to me through satisfactory evidence of identification, which was/were U.S. Passport, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.


Signature of Notary

(Seal)

My Commission Expires: 12/30/2010

ANNA MARIE DAWLEY
Notary Public, State Of New York
No. #01DA6085499
Qualified In St. Lawrence County
Commission Expires Dec. 30, 2010

Inventor: _____
Alexei Maznev

State/Commonwealth of)
County of) ss

On this ___ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexei Maznev, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

Inventor: _____
Alexander Mazurenko

State/Commonwealth of)
County of) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexander Mazurenko, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

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NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such Letters Patent, and any right, title and interest we may have in provisional applications to which said application claims priority; said invention(s), applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE in its own name as assignee of our entire right, title and interest therein;

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Inventor: _____
Peter Rosenthal

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Peter Rosenthal, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

Inventor: Carlos A. Duran

State/Commonwealth of)
County of) ss

On this ___ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Carlos A. Duran, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

Inventor: Alexei Maznev

State/Commonwealth of)
County of) ss

On this 23rd day of January, 2008 before me, the undersigned Notary Public, personally appeared Alexei Maznev, proved to me through satisfactory evidence of identification, which was/were Mass Drivers License, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

[Signature]
Signature of Notary

The Commonwealth of Massachusetts
On this 23rd day of January, 2008
before me, the undersigned notary public, personally appeared Alexei Maznev
proved to me through satisfactory evidence of identification, which were Mass Drivers License
to be the person whose name is signed on the preceding or attached document and
acknowledged to me that he/she signed it voluntarily for its stated purpose.
[Signature]
ROBERT A. MURRAY, Notary Public
My Commission Expires July 25, 2014

Inventor: _____
Alexander Mazurenko

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexander Mazurenko, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

LIBA/1857949.1

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IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals on the date(s) set forth below.

Inventor: _____
Peter Rosenthal

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Peter Rosenthal, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

Inventor: _____
Carlos A. Duran

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Carlos A. Duran, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

My Commission Expires: _____

Inventor: _____
Alexei Maznev

State/Commonwealth of _____)
County of _____) ss

On this ____ day of _____, 200__ before me, the undersigned Notary Public, personally appeared Alexei Maznev, proved to me through satisfactory evidence of identification, which was/were _____, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Signature of Notary

(Seal)

Inventor: A. Mazurenko
Alexander Mazurenko

State/Commonwealth of Mass.)
County of NORFOLK) ss

On this 15th day of January, 2008 before me, the undersigned Notary Public, personally appeared Alexander Mazurenko, proved to me through satisfactory evidence of identification, which was/were HDL, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Teresa Roberto
Signature of Notary

(Seal)

My Commission Expires: 06/03/2011

LIBA/1857949.1

